SIEMENS

Data sheet

3RF20 20-1AA24



SEMICONDUCTOR RELAY 3RF2, 1-PH. WIDTH 45 MM, 20 A 48-460 V / 110-230 V AC SCREW TERMINAL

General technical data:					
product brand name		SIRIUS			
Product designation		solid-state relay			
Product function	-	zero-point switching			
Number of poles for main current circuit		1			
Protection class IP		IP20			
Ambient temperature					
 during operation 	°C	-25 +60			
 during storage 	°C	-55 +80			
Installation altitude at height above sea level	m	1 000			
maximum					
Vibration resistance acc. to IEC 60068-2-6		2g			
Shock resistance acc. to IEC 60068-2-27		15g / 11 ms			
Equipment marking acc. to DIN 40719 extended		К			
according to IEC 204-2 acc. to IEC 750					
Equipment marking acc. to DIN EN 61346-2		Q			
Number of NC contacts for auxiliary contacts		0			
Number of NO contacts for auxiliary contacts		0			
Number of CO contacts for auxiliary contacts		0			
Main circuit:					
Number of NO contacts for main contacts		1			
Number of NC contacts for main contacts		0			
Operating current					
 Rated value maximum 	А	20			
 at AC-51 Rated value 	А	20			

• minimum	mA	100
Operating voltage with AC		
• at 50 Hz Rated value	V	48 460
● at 60 Hz Rated value	V	48 460
Operating range relative to the operating voltage with	_	
AC		
• at 50 Hz	V	40 506
• at 60 Hz	V	40 506
Operating frequency Rated value	Hz	50 60
Relative symmetrical tolerance of the operating	%	10
frequency		
Insulation voltage Rated value	V	600
Rate of voltage rise at the thyristor for main contacts maximum permissible	V/µs	500
Blocking voltage at the thyristor for main contacts	V	1 200
maximum permissible		
Reverse current of the thyristor	mA	10
Derating temperature	°C	40
Active power loss total typical	W	28.6
Surge current resistance Rated value	А	200
I2t value maximum	A²·s	200
Short-circuit protection, design of the fuse link	-	
Control circuit/ Control:		
Control supply voltage frequency		
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
Type of voltage of the control supply voltage		AC
Control supply voltage 1	_	
• with AC		
— at 50 Hz Initial rated value	V	110
— at 50 Hz Final rated value	V	230
— at 60 Hz Initial rated value	V	110
— at 60 Hz Final rated value	V	230
Control supply voltage		
• with AC		
— at 50 Hz Full-scale value for signal<0>	V	40
recognition		
— at 60 Hz Full-scale value for signal<0>	V	40
recognition		
Symmetrical line frequency tolerance	Hz	5
Relative symmetrical tolerance of the supply voltage frequency	%	10

 at minimum control supply voltage 		
— with AC	mA	2
with AC Rated value	mA	15

Installation/ mounting/ dimensions:					
Mounting type		screw fixing			
Mounting type Side-by-side mounting		Yes			
Design of the thread of the screw for securing the equipment		M4			
Tightening torque of the screw for securing the equipment	N∙m	1.5			
Width	mm	45			
Height	mm	58			
Depth	mm	48			

Type of electrical connection for main current circuit screw-type terminals Design of the thread of the connection screw for main contacts M4 Tightening torque for main contacts with screw-type terminals M4 • minimum N·m 2 • maximum N·m 2.5 Tightening torque [lbf-in] for main contacts with screw-type terminals Mim 7 • minimum Ibf in 7 • maximum Ibf in 10.3 Type of connectable conductor cross-section 2x (1.5 2.5 mm²), 2x (2.5 6 mm²) • for main contacts 2x (1.1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² - solid 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • for auxiliary and control contacts 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² • for auxiliary and control contacts 2x (1 2.5 mm²), 2x (0.5 1.0 mm²) • for auxiliary and control contacts 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) • for auxiliary and control contacts 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) - solid 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) - mith core end processing 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) - finely stranded 1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) </th <th>Connections/ Terminals:</th> <th></th> <th></th>	Connections/ Terminals:		
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	— finely stranded		
Connectable conductor cross-section • for main contacts	— with core end processing		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
for main contacts	— without core end processing		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
	Connectable conductor cross-section		
— single or multi-stranded mm ² 1.5 6	• for main contacts		
	— single or multi-stranded	mm²	1.5 6
— finely stranded	— finely stranded		

mm²	1 10
mm²	0.5 2.5
mm²	0.5 2.5
mm²	0.5 2.5
	14 10
	screw-type terminals
	M3
	20 12
-	
mm	10
mm	7
N∙m	0.5 0.6
lbf∙in	4.5 5.3
	mm² mm² mm² mm² Mm mm

Certificates/ approvals:

General Product Approval		EMC	Declaration of Conformity	Test Certificates	
CSA	GAU UR	EHC	Сстіск	EG-Konf.	<u>Type Test</u> Certificates/Test <u>Report</u>

other			
Environmental			
Confirmations			

Further information

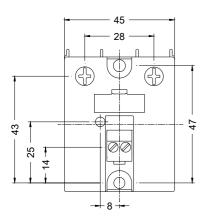
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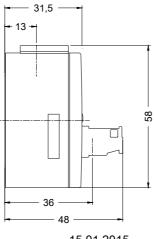
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